

Government of India

भारत सरकार

Northern Regional Power Committee

उत्तर क्षेत्रीय विद्युत समिति

18-A, Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi-110016

18-ए शहीद जीत सिंह मार्ग, कटवारिया सराय, नई दिल्ली- 110016

No. NRPC/SE(O)/Inquiry Committee /2010-11/

Dated :25.06.2010

To,

All Members of NRPC (as per list attached)

Subject: Report of the inquiry committee on Grid Incident and implementation of the recommendations of the Inquire Committee.

Sir,

The Inquiry committee constituted by CEA under the Chairmanship of Member GO&D, CEA, to enquire into the Grid incident occurred in Northern Region on 2nd January, 2010 and suggest the remedial measures has submitted its report to CEA.

The presentation on the report of the Inquiry Committee was made by Member Secretary, NRPC and Member Convener of Inquiry Committee on 3rd June, 2010 before the Authority. The Authority has accepted the report along with its recommendations.

The Authority has directed that an action plan may be formulated by NRPC for the implementation of the recommendations of the committee, in short term, medium term and long term, identifying agencies which are required to take action. Accordingly, the detailed action plan has been prepared by NRPC Secretariat.

A copy of the report of the Inquiry Committee accepted by the Authority alongwith action plan is enclosed herewith. The report is also made available at NRPC web site at <http://nrpc.gov.in>

It is requested that the recommendations of the Inquiry Committee under the respective jurisdiction may be implemented within the time frame as indicated in the action plan.

Encl: As above

Yours faithfully,

Ashok Kumar Aggarwal
25/06/2010

(Ashok Kumar Aggarwal)
(MS, NRPC & Member convener,
Inquiry Committee)

Copy for information to:

1. Chairperson, CEA, New Delhi
2. Member (GO&D), CEA, New Delhi
3. Secretary, CEA, New Delhi

Action Plan for implementation of Recommendation of the Inquiry Committee

S.No	Recommendation	Action By	Time frame (months)	Target
1	<p>The recommendations of the earlier inquiry committee to investigate the earlier Grid Incident of 27th January, 2007 and 7&9 March, 2008 which need to be complied immediately are:-</p> <ul style="list-style-type: none"> • Classification of pollution levels of lines / line stretches by measurement of ESDD on insulator. • Notifications by the respective State Government that no brick kiln or any industrial unit or biomass or diesel based power plant having chimney height up to 30 meters be set up within 0.5 km of the 220 kV or higher voltage transmission lines. • Review of pollution standard in respect of smoke emission from Chimneys of brick kiln or any industrial unit or biomass power with height upto 30 meters so as to reduce level of emission of suspended particulate matter. • Pollution control of diesel vehicle entering NCR area. • Pollution Mapping of the Country 	<p>CTU, STUs</p> <p>State Utilities, State Govts.</p> <p>State Utilities,</p> <p>State Govts.</p> <p>State Govts.</p> <p>State Govts. POWERGRID</p>	<p>6</p> <p>6</p> <p>6</p> <p>6</p> <p>3-6</p> <p>12</p>	<p>Medium term</p> <p>Medium term</p> <p>Medium term</p> <p>Medium term</p> <p>Medium term</p> <p>Long term</p>

	<ul style="list-style-type: none"> Railway supply reliability 	Railways	3	Medium term
2	<p>Replacement of existing insulators by Polymer/Antifog Insulators</p> <p>In addition to the replacement of porcelain insulators with polymer/anti-fog insulators on already identified line, utilities should also identify additional lines which are getting frequently affected due to fog in winter season. The work of replacement of porcelain insulators with polymer/anti-fog insulators should be carried out on the complete stretches of the lines especially in case of the critical 400kV and 200kV lines and evacuation lines from the generating station</p>	CTU/STUs	6	Medium term
3	<p>Cleaning of Insulators and maintenance system Elements</p>	All utilities	Regularly, particularly by 15 th Nov	Short term
4	<p>Improving Maintenance of System Elements around NAPS</p>	UPPTCL	6	Short term
5	<p>Monitoring Mechanism</p> <p>SLDCs and NRLDC may closely monitor the criticality of lines vis-à-vis shutdown availed for cleaning/replacement of insulators of lines.</p>	SLDC, NRLDC, NRPC	Monthly basis	Short term
6	<p>Alertness during foggy condition</p> <p>Data of Relative Humidity (RH) and temperature should be captured. All constituents should closely monitor these forecasts and ensure availability of suitable O&M staff in</p>	CTU, STUs, SLDCs, NRLDC,	Regularly, during winter period	Short term

	<p>place and senior officers at all strategic locations</p> <p>When the grid is critical, SLDCs may ensure the loading of major trunk line is controlled with adequate safety margin. NRLDC may reduce loading of lines in North-West part of NR system during foggy weather period. The operators at SLDCs may follow the instructions of NRLDC to reduce the drawal from the grid, maintain the system parameters particularly the voltages at the grid sub-stations. All the utility must be prepared to meet even more N-2 contingency under such operating condition of the grid.</p>			
7	<p>Railway Supply Reliability</p> <p>To make arrangement for additional supply point(s) for the traction system, replace porcelain insulators with polymer and enhance maintenance of the system elements</p>	Railways	3	Short term
7	<p>Protection Coordination</p> <p>Each utility should get the protection study and audit done through third party.</p>	All utilities	12	Long term
8	<p>Requirement to change the CT ratio to higher range</p>	CTU/STUs	1	Short term
9	<p>Functioning of RTU and data telemetry facilities- All RTUs and data telemetry facility should be functioning in the generation stations/grid sub-stations. The non-reporting RTUs should be integrated with the system immediately.</p>	CTU/STUs /Gencom/ IPPs	6	Medium term
10	<p>Adequate back-up power supply at wide band communication and its regular upkeep</p>	CTU/STUs	6	Short term

11	Effectiveness of defense mechanism and adequacy of safety net Defense mechanism should be further strengthened in NR	State Utilities, SLDCs, NRLDC and NRPC	3	Short term
12	Healthiness of DR/EL and time synchronization To ensure healthiness of all recording equipment at the generating station and sub-station which are important for analysis of grid incidents and must be time synchronized using GPS.	All Utilities	6	Short term
13	Planning/Commissioning of additional 400 kV links to take care of fog related Tripping	CTU/STUs/CEA	12	Long term
14	Reactive Power Management	CTU/STUs/Discom/GENCOS	6	Medium term
15	Pollution control State Governments should strictly enforce the pollution check and ensure pollution causing establishments are not in the vicinity of the existing transmission lines	State Govts/CTU/STUs	9	Medium term
16	Chemical analysis of deposit on Insulators Strings STUs and CTU may get this analysis of deposits on insulators of lines preferably done every year.	CTU/ STUs	12	Long term
17	Pollution mapping of the whole country	POWERGRID	12	Long term
18	Other issues -Ensuring PLCC equipments healthiness -All incidents must be analyzed and reported	CTU/STUs CTU/STUs	3 Immediately	short term